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REVIEW ARTICLE

AN EXTENSIVE EMPHYSEMATOUS AORTITIS WITH NO PRIOR VASCULAR INTERVENTION OR AORTIC DISEASE: A CASE REPORT

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ABSTRACT

Emphysematous aortitis is extremely rare. We report an uncommon case of emphysematous aortitis, presenting with severe sepsis, and occurring with no prior vascular intervention or aortic disease. This case highlights the importance of emergent medical and surgical management of this entity once diagnosis has been made. An 84-year-old female patient, with hypertension, presented with a one-week history of fever, fatigue and cough. Physical examination revealed fever and tachycardia. Given the current pandemic outbreak of Covid-19, a rapid antigen test was negative. Thoracic CT scan revealed the presence of air invading the aortic wall extending from the ascending aorta to the descending thoracic aorta without aortic aneurysm. The patient was diagnosed with emphysematous aortitis and started on broad spectrum antibiotics. Surgical intervention was not retained and the patient succumbed to sepsis after one day of treatment.

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INTRODUCTION

An 84-year-old female patient, with hypertension, presented with a one-week history of fever, fatigue and cough. No history of dyspnea, diarrhea nor abdominal pain. Physical examination revealed 39°C fever and tachycardia. Given the current pandemic outbreak of Covid-19, a rapid antigen test was carried out and returned negative. Analyses showed hyper leukocytosis with predominant neutrophilia and elevated C-reactive-protein. Thoracic CT scan revealed presence of air invading the aortic wall extending from the ascending aorta to the descending thoracic aorta without aortic aneurysm (Figure 1 and 2). The patient was diagnosed with emphysematous aortitis and started on broad spectrum antibiotics (Imipenem and vancomycin). Blood cultures did not reveal any germs and unfortunately the patient succumbed to sepsis after one day of treatment. This case is rare and intriguing as the patient had no anterior vascular intervention, no aortic pathology and the emphysematous process was extensive and included the ascending aorta all the way to the descending thoracic aorta thus making interventional treatment rather challenging.

Emphysematous aortitis is a fatal condition with most reported cases due to endovascular graft complications and occurring in the abdominal aorta (1-3). In our knowledge, less than five reports of emphysematous aortitis occurring in a non-aneurysmal aorta and without prior vascular intervention were previously published in the medical literature. Common organisms are staphylococcus, salmonella and *clostridium Septicum*. Treatment includes antibiotics and surgical debridement. Prognosis is poor with a mortality rate reaching 100% without intervention (2).

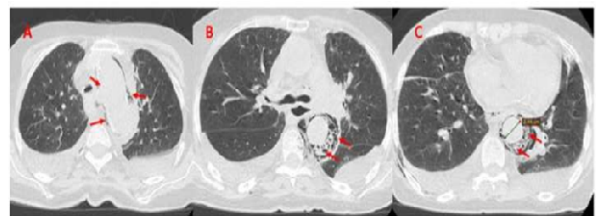


Figure 1. Contrast-enhanced computed tomography images in axial (A, B, C) sections: a—air is noted within the aortic arch wall (arrows); C—air with multiple air pockets seen surrounding the descending aorta, extending from the ascending to the aorta

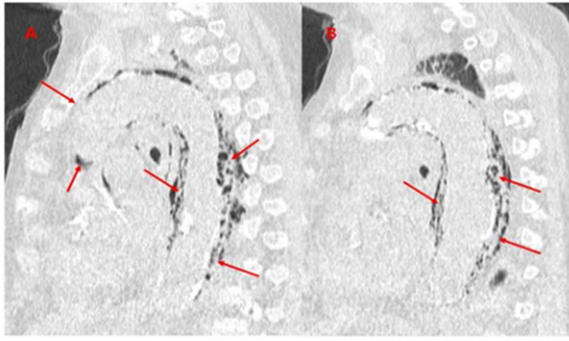


Figure 2. Contrast-enhanced CT images in sagittal (A, B) sections showing an emphysematous aortitis involving all the thoracic aorta, from the ascending to the descend segment, we note the existence of a small aortic ectasia with parietal calcifications but without an aneurysm

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Conflict of interest: No conflict of interest to declare.

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REFERENCES

1. Harris C, Geffen J, Rizg K, Shah S, Richardson A, Baldeo C, and al. 2017. A Rare Report of Infectious Emphysematous Aortitis Secondary to *Clostridium septicum* without Prior Vascular Intervention. *Case Rep Vasc Med.*2017:4984325. doi:10.1155/2017/4984325 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5623765>
2. Seder CW, Kramer M, Long G, Uzieblo MR, Shanley CJ, Bove P. 2009. *Clostridium septicum* aortitis: Report of two cases and review of the literature. *J Vasc Surg.* 49(5):1304-1309. doi:10.1016/j.jvs.2008.11.0583. <https://pubmed.ncbi.nlm.nih.gov/19307090/>
3. Granier M, Granier A, Fraga J, Durant R. 2011. Emphysematous infectious aortitis: a dramatic evolution. *Eur Heart J.* 32(16):2085. doi:10.1093/eurheartj/ehr152 <https://pubmed.ncbi.nlm.nih.gov/21593042/>
